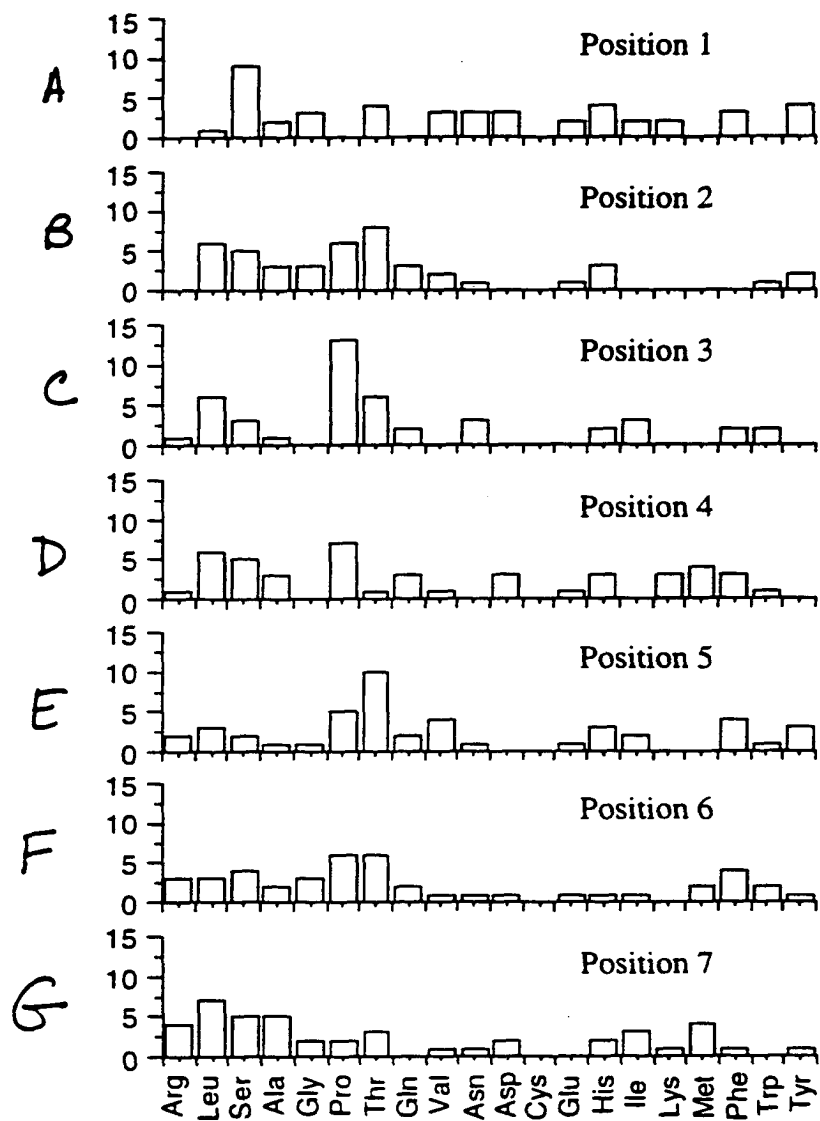




Figure 1





Sequences 1-40 (some did not sequence) panning 3 expt 1

His Thr Thr Val Tyr Gly Ala Gly  
CAT ACG ACT GTT TAT GGG GCT GGT

Thr Glu Thr Pro Tyr Pro Thr Gly  
ACT GAG ACG CCT TAT CCT ACT GGT

Leu Thr Thr Pro Phe Ser Ser Gly  
CTT ACT ACT CCG TTT TCG TCG GGT

Gly Val Pro Leu Thr Met Asp Gly  
GGT GTG CCT CTT ACG ATG GAT GGT

Lys Leu Pro Thr Val Leu Arg Gly  
AAG CTT CCG ACT GTT CTG CCG GGT

Cys Arg Phe His Gly Asn Arg Gly  
TGT CGC TTT CAT GGG AAT CGT GGT

Tyr Thr Arg Asp Phe Glu Ala Gly  
TAT ACT CGG GAT TTT GAG GCT GGT

Ser Ser Ala Ala Gly Pro Arg Gly  
TCG TCG GCG GCT GGT CCG CCG GGT

Ser Leu Ile Gln Tyr Ser Arg Gly  
TCT CTG ATT CAG TAT TCG AGG GGT

Asp Ala Leu Met Trp Pro UKN Gly  
GAT GCT CTT ATG TGG CCT NTG GGT

Ser Ser UKN Ser Leu Tyr Ile Gly  
TCG TCT CNT TCG TTG TAT ATT GGT

Phe Asn Thr Ser Thr Arg Thr Gly  
TTT AAT ACT TCG ACG CGT ACG GGT

Thr Val Gln His Val Ala Phe Gly  
ACT GTG CAG CAT GTT GCT TTT GGT

Asp Tyr Ser Phe Pro Pro Leu Gly  
GAT TAT TCT TTT CCG CCT CTT GGT

Val Gly Ser Met Glu Ser Leu Gly  
GTG GGG TCT ATG GAG TCG TTG GGT

Phe UKN Pro Met Ile UKN Ser Gly  
TTT CAN CCG ATG ATT NGN TCG GGT

Ala Pro Pro Arg Val Thr Met Gly  
GCG CCT CCG CCG GTT ACT ATG GGT

FIGURE 1H.



Ile Ala Thr Lys Thr Pro Lys Gly  
ATT GCT ACG AAG ACG CCT AAG GGT

Lys Pro Pro Leu Phe Gln Ile Gly  
AAG CCT CCG TTG TTT CAG ATT GGT

Tyr His Thr Ala His Asn Met Gly  
TAT CAT ACT GCT CAT AAT ATG GGT

Ser Tyr Ile Gln Ala Thr His Gly  
TCT TAT ATT CAG GCT ACG CAT GGT

Ser Ser Phe Ala Thr Phe Leu Gly  
TCG TCT TTT GCT ACT TTT CTT GGT

Thr Thr Pro Pro Asn Phe Ala Gly  
ACG ACT CCG CCG AAT TTT GCG GGT

Ile Ser Leu Asp Pro Arg Met Gly  
ATT TCT CTT GAT CCG CGT ATG GGT

Ser Leu Pro Leu Phe Gly Ala Gly  
TCG CTG CCG CTG TTT GGT GCG GGT

Asn Leu Leu Lys Thr Thr Leu Gly  
AAT CTT CTT AAG ACT ACG CTT GGT

Asp Gln Asn Leu Pro Arg Arg Gly  
GAT CAG AAT CTG CCG CGG CGG GGT

Ser His Phe Glu Gln Leu Leu Gly  
AGT CAT TTT GAG CAG CTG CTT GGT

Thr Pro Gln Leu His His Gly Gly  
ACG CCG CAG CTT CAT CAT GGT GGT

Ala Pro Leu Asp Arg Ile Thr Gly  
GCG CCT CTG GAT AGG ATT ACG GGT

Phe Ala Pro Leu Ile Ala His Gly  
TTT GCG CCT CTT ATT GCG CAT GGT

Ser Trp Ile TER Thr Phe Met Gly  
TCG TGG ATT TAG ACG TTT ATG GGT

Asn Thr Trp Pro His Met Tyr Gly  
AAT ACT TGG CCT CAT ATG TAT GGT

Glu Pro Leu Pro Thr Thr Leu Gly  
GAG CCT CTT CCG ACT ACG TTG GGT

His Gly Pro His Leu Phe Asn Gly  
CAT GGG CCT CAT CTG TTT AAT GGT

14 (cont.)

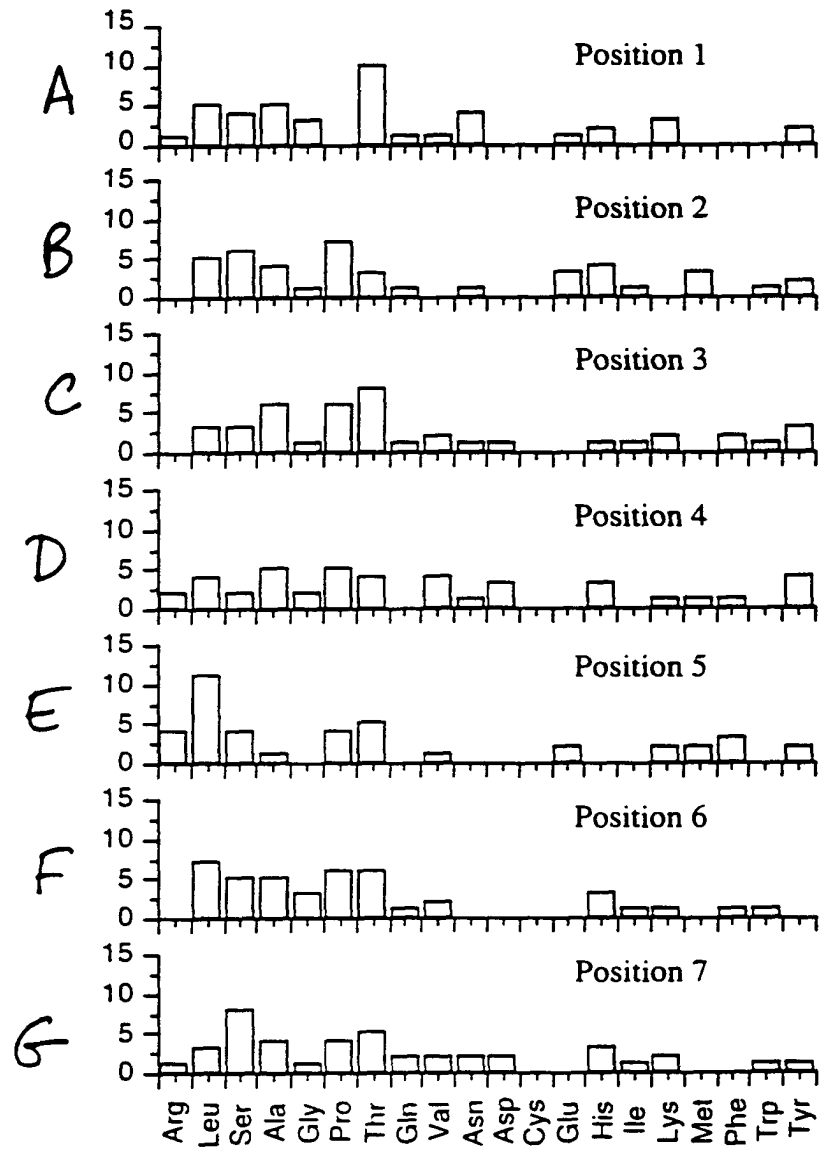


Tyr Leu Asn Ser Thr Leu Ala Gly  
TAT CTG AAT TCT ACG CTT GCT GGT

His Leu His Ser Pro Ser Gly Gly  
CAT CTT CAT AGT CCG TCG GGG GGT

1 H (cont)

Figure 2





Translated sequences 41-80 (not all sequenced) panning #3 exp: #3

Thr Leu Pro His Arg Leu Asn Gly  
ACT CTG CCT CAT CGT CTG AAT GGT

Ser Ser Pro Arg Glu Val His Gly  
TCG AGT CCG AGG GAG GTT CAT GGT

Asn Gln Val Asp Thr Ala Arg Gly  
AAT CAG GTT GAT ACG GCT CGG GGT

Tyr Pro Thr Pro Leu Leu Thr Gly  
TAT CCT ACG CCG CTG CTG ACT GGT

His Pro Ala Ala Phe Pro Trp Gly  
CAT CCT GCT GCT TTT CCT TGG GGT

Leu Leu Pro His Ser Ser Ala Gly  
CTT CTT CCG CAT TCT AGT GCT GGT

Leu Glu Thr Tyr Thr Ala Ser Gly  
CTT GAG ACT TAT ACG GCT TCT GGT

Lys Tyr Val Pro Leu Pro Pro Gly  
AAG TAT GTG CCT CTG CCG CCG GGT

Ala Pro Leu Ala Leu His Ala Gly  
GCG CCG TTG GCT CTG CAT GCG GGT

Tyr Glu Ser Leu Leu Thr Lys Gly  
TAT GAG TCG CTG CTG ACT AAG GGT

Ser His Ala Ala Ser Gly Thr Gly  
TCT CAT GCG GCT TCT GGT ACT GGT

Gly Leu Ala Thr Val Lys Ser Gly  
GGT TTG GCG ACT GTT AAG TCT GGT

Gly Ala Thr Ser Phe Gly Leu Gly  
GGT GCT ACG TCT TTT GGG CTT GGT

Lys Pro Pro Gly Pro Val Ser Gly  
AAG CCG CCT GGG CCG GTG TCG GGT

Thr Leu Tyr Val Ser Gly Asn Gly  
ACT CTT TAT GTT TCT GGG AAT GGT

His Ala Pro Phe Lys Ser Gln Gly  
CAT GCT CCG TTT AAG TCT CAG GGT

Val Ala Phe Thr Arg Leu Pro Gly  
GTG GCG TTT ACG CGG CTT CCG GGT

FIGURE 2H.

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Leu	Pro	Thr	Arg	Thr	Pro	Ala	Gly
CTG	CCG	ACT	CGT	ACG	CCG	GCT	GGT
Ala	Ser	Phe	Asp	Leu	Leu	Ile	Gly
GCG	AGT	TTT	GAT	CTT	TTG	ATT	GGT
Arg	Met	Asn	Thr	Glu	Pro	Pro	Gly
CGG	ATG	AAT	ACT	GAG	CCT	CCG	GGT
Lys	Met	Thr	Pro	Leu	Thr	Thr	Gly
AAG	ATG	ACT	CCT	CTG	ACG	ACT	GGT
Ala	Asn	Ala	Thr	Pro	Leu	Leu	Gly
GCG	AAT	GCG	ACG	CCT	CTG	CTG	GGT
Thr	Ile	Trp	Pro	Pro	Pro	Val	Gly
ACT	ATT	TGG	CCT	CCG	CCT	GTT	GGT
Gln	Thr	Lys	Val	Met	Thr	Thr	Gly
CAG	ACT	AAG	GTG	ATG	ACG	ACG	GGT
Asn	His	Ala	Val	Phe	Ala	Ser	Gly
AAT	CAT	GCT	GTT	TTT	GCT	AGT	GGT
Leu	His	Ala	Ala	UKN	Thr	Ser	Gly
CTG	CAT	GCG	GCT	ANT	ACG	TCG	GGT
Thr	Trp	Gln	Pro	Tyr	Phe	His	Gly
ACG	TGG	CAG	CCG	TAT	TTT	CAT	GGT
Ala	Pro	Leu	Ala	Leu	His	Ala	Gly
GCG	CCG	TTG	GCT	CTG	CAT	GCG	GGT
Thr	Ala	His	Asp	Leu	Thr	Val	Gly
ACG	GCG	CAT	GAT	CTG	ACT	GTT	GGT
Asn	Met	Thr	Asn	Met	Leu	Thr	Gly
AAT	ATG	ACT	AAT	ATG	CTT	ACT	GGT
Gly	Ser	Gly	Leu	Ser	Gln	Asp	Gly
GGT	TCT	GGG	CTG	TCT	CAG	GAT	GGT
Thr	Pro	Ile	Lys	Thr	Ile	Tyr	Gly
ACG	CCG	ATT	AAG	ACG	ATT	TAT	GGT
Ser	His	Leu	Tyr	Arg	Ser	Ser	Gly
TCG	CAT	CTG	TAT	CGT	TCT	AGT	GGT

2H (cont)

Figure 3A

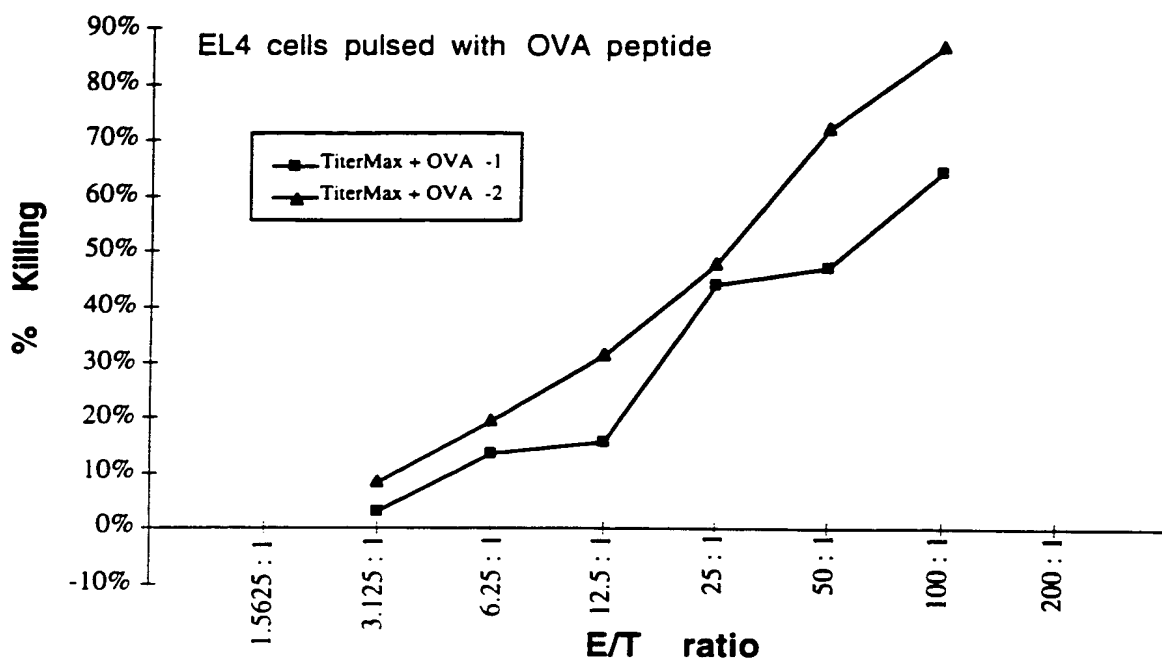


Figure 3B

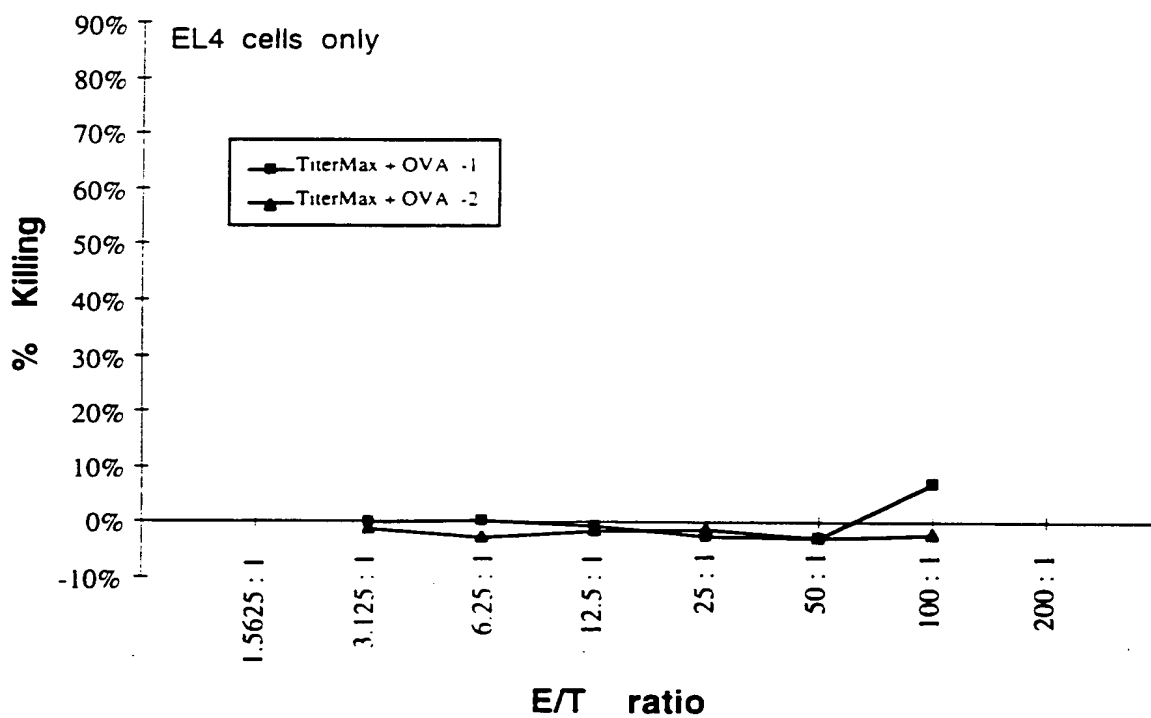




Figure 4A

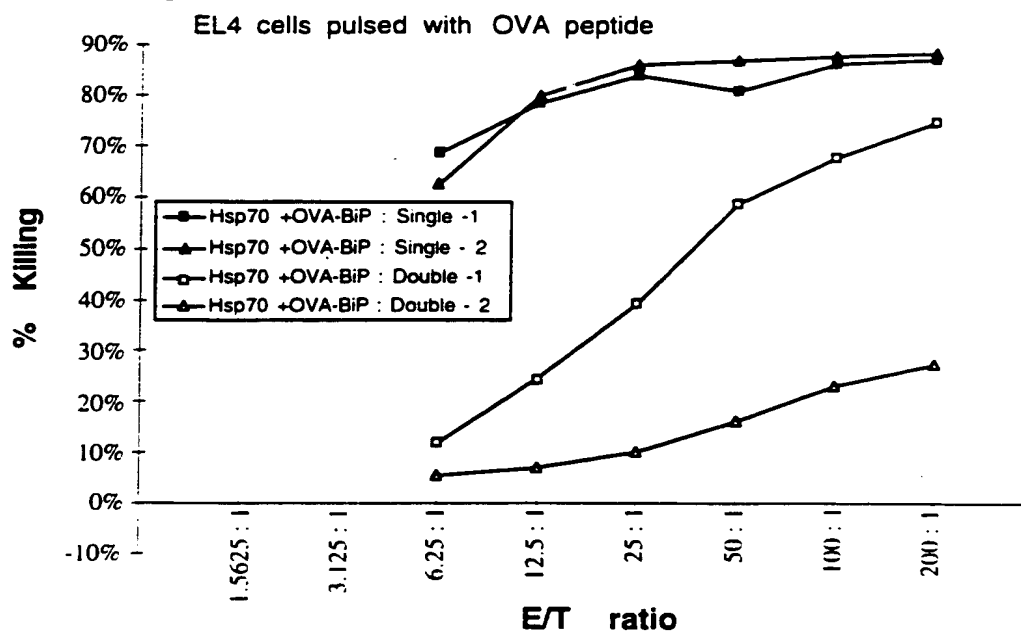


Figure 4B

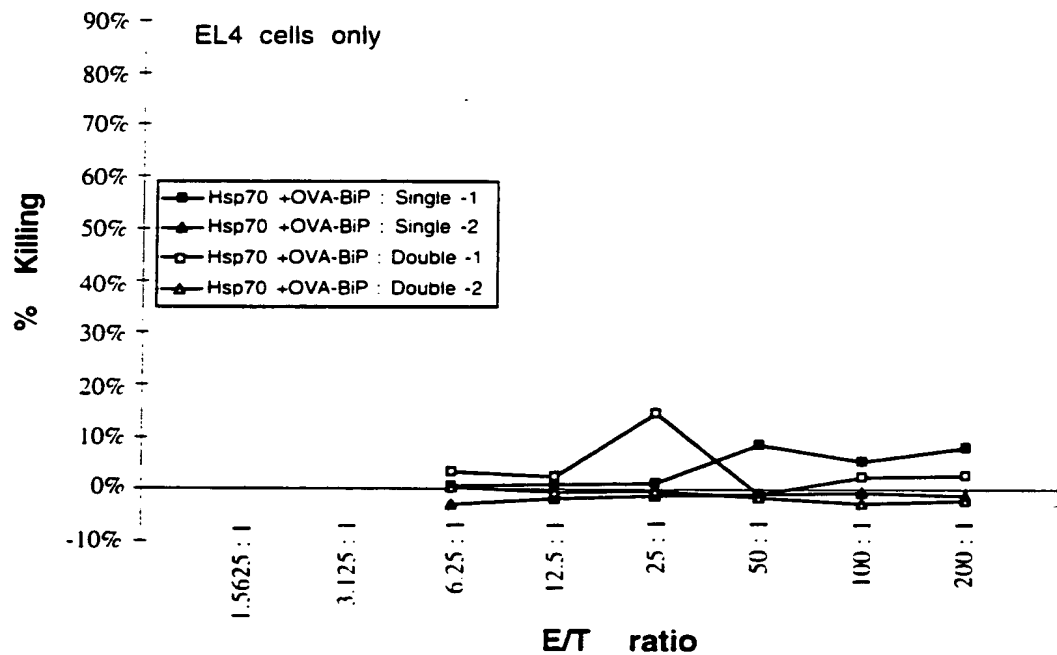




Figure 5A

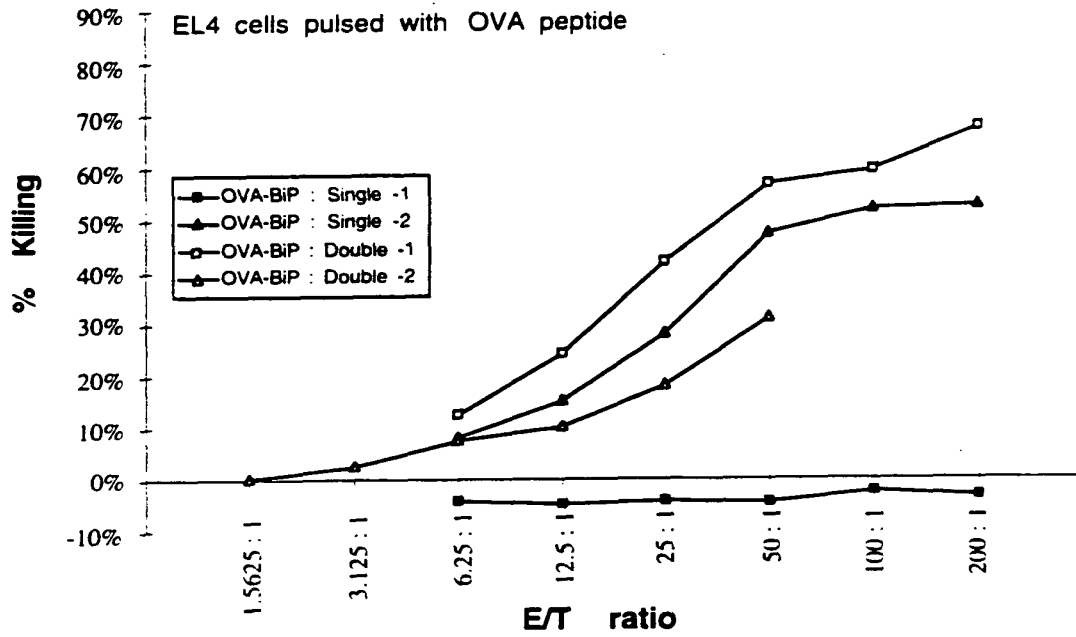


Figure 5B

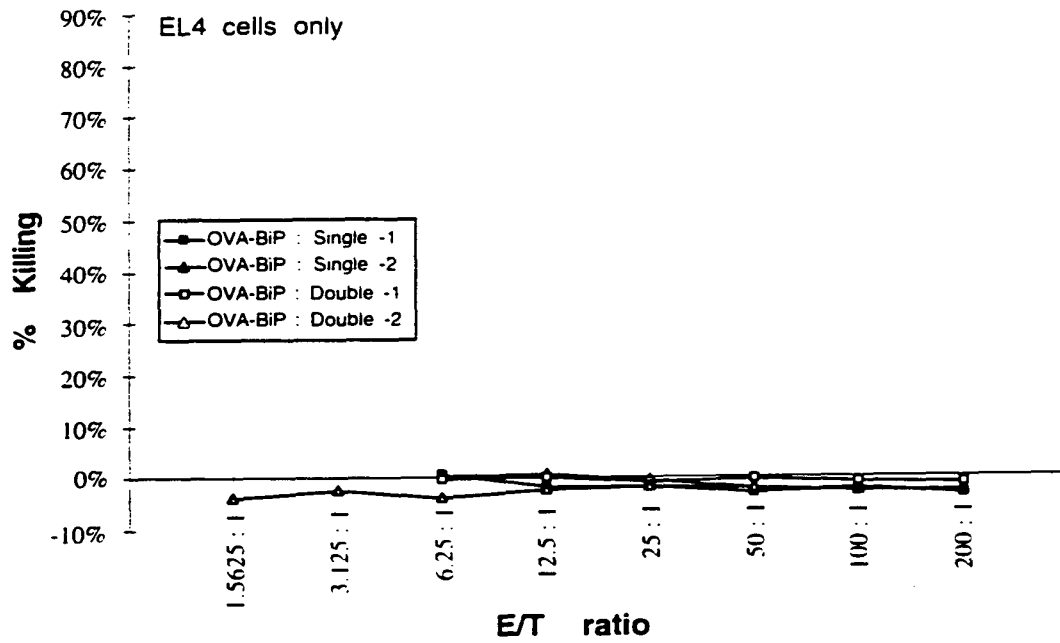




Figure 6A

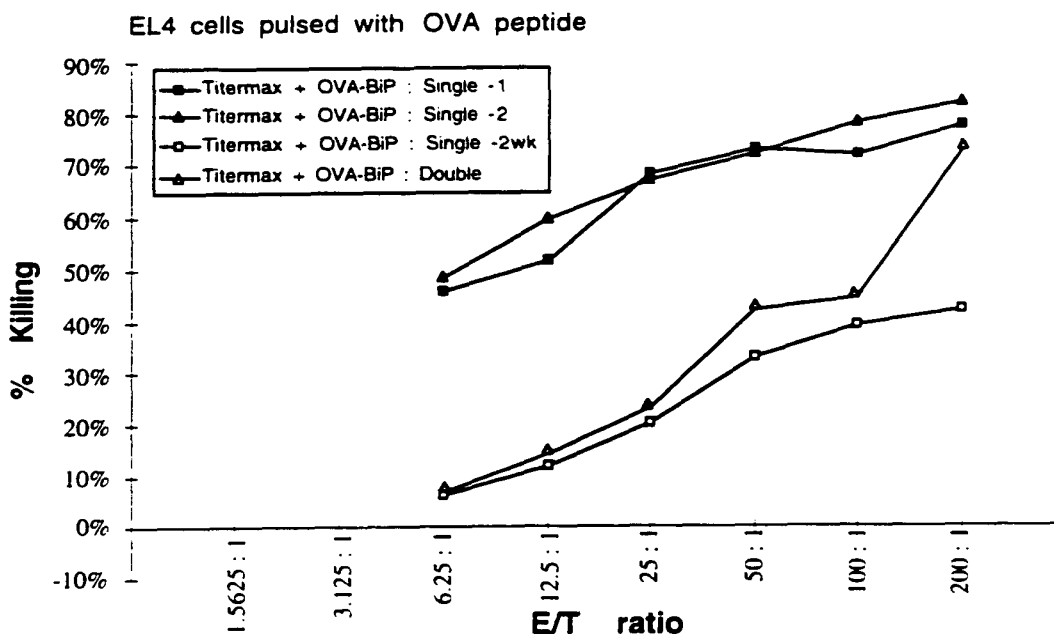
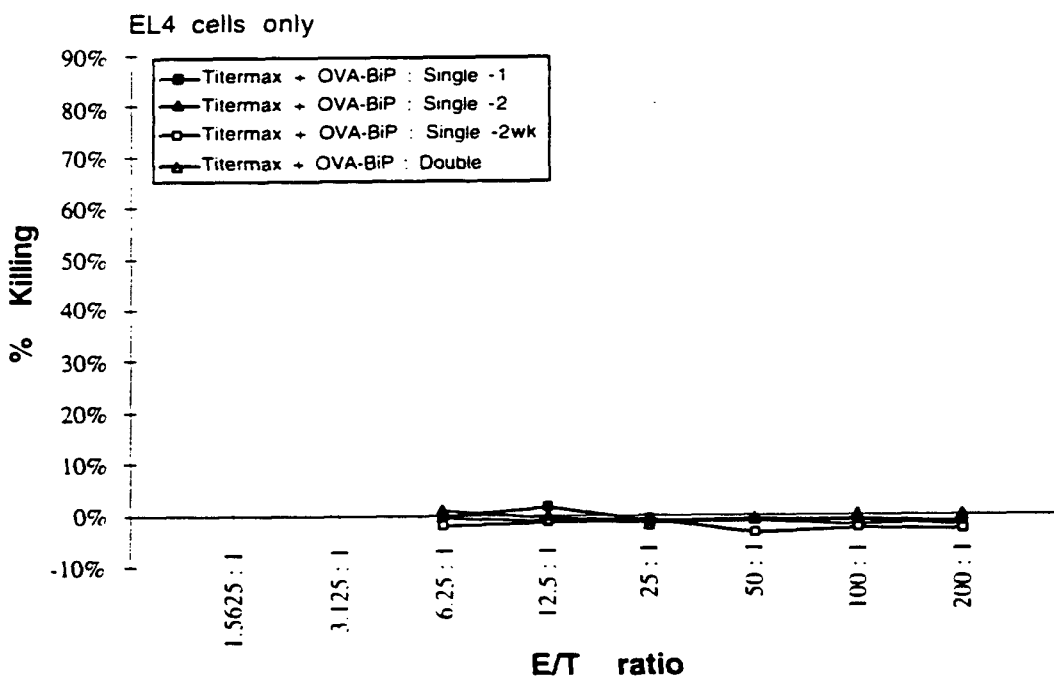


Figure 6B



## Peptide Only Immunizations

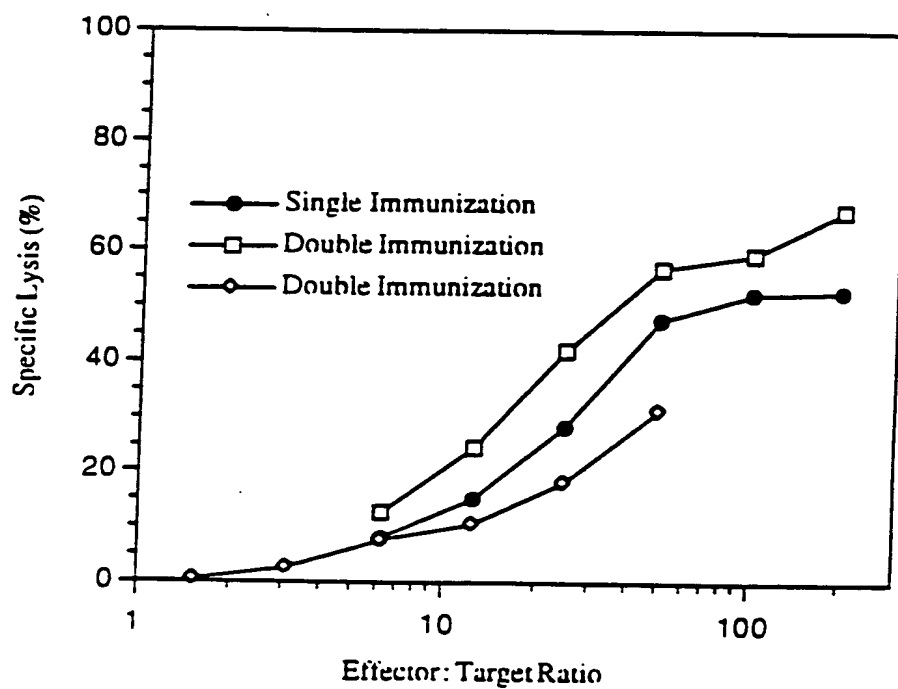


FIGURE 7

tumor protection

6671

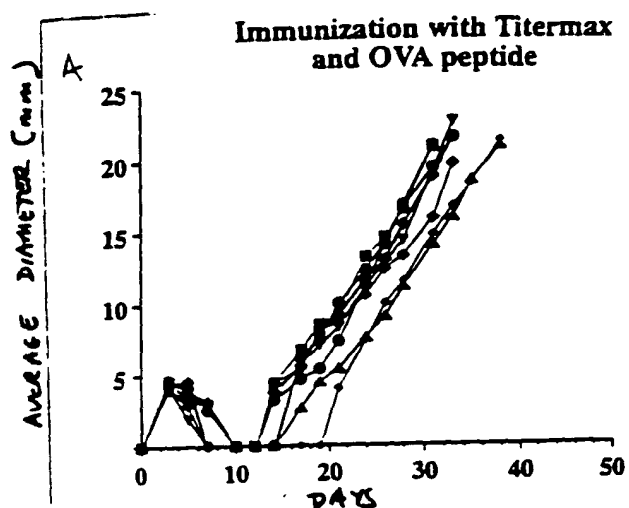


FIGURE 8A

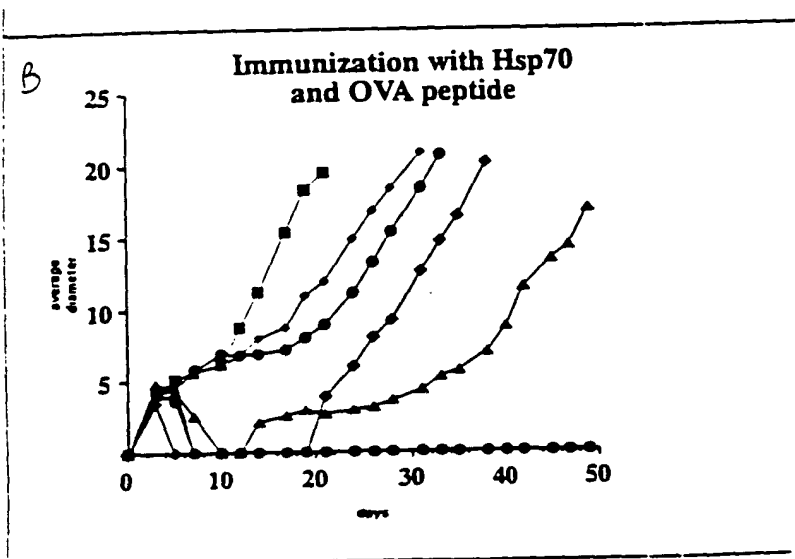


FIGURE 8B

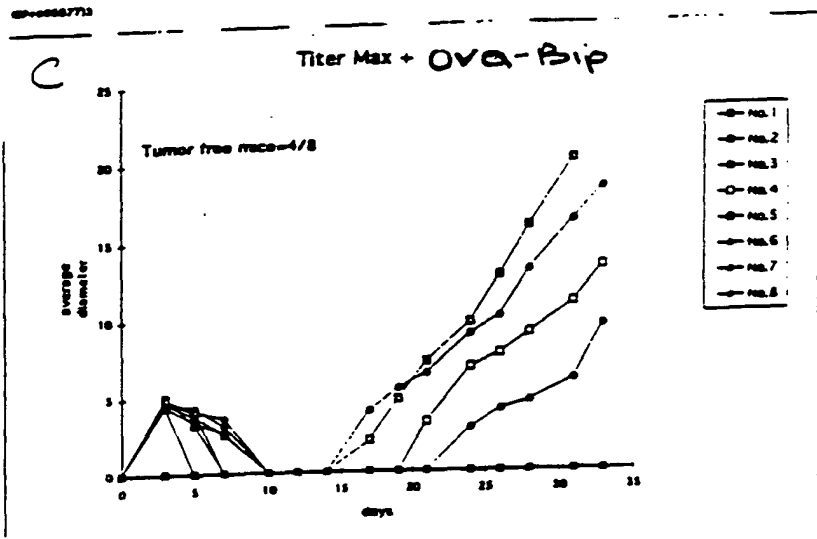


FIGURE 8C

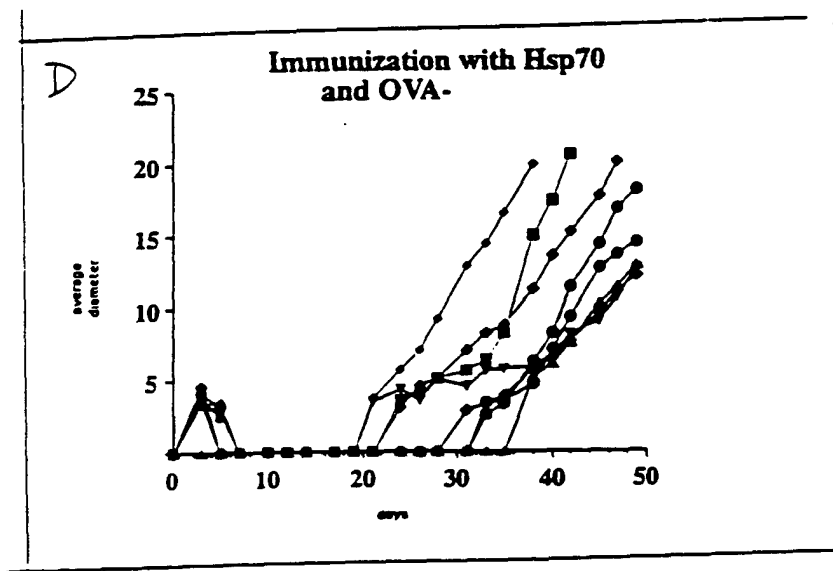


FIGURE 8D

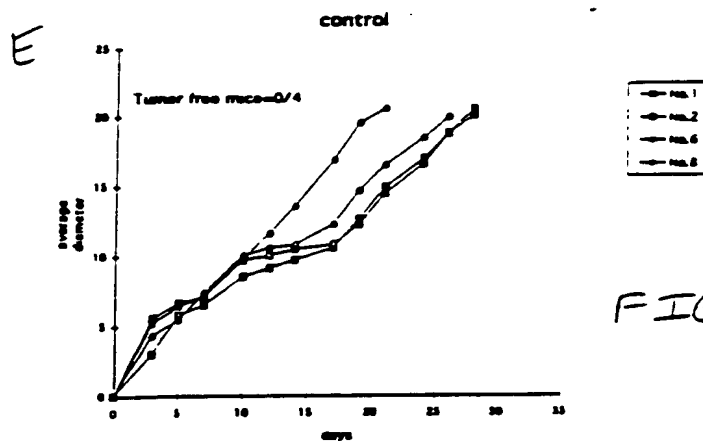


FIGURE 8E

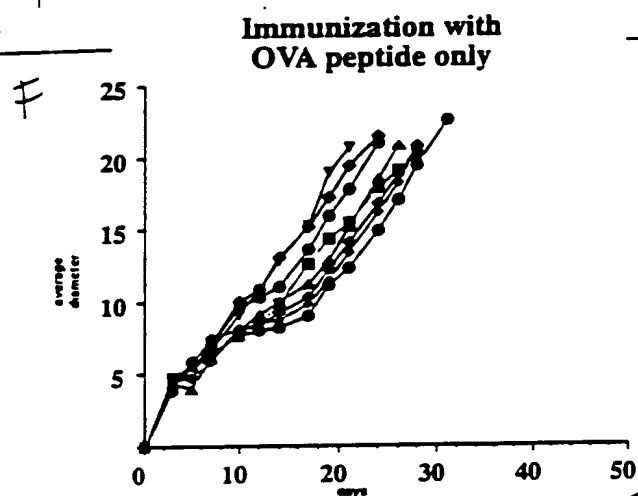


FIGURE 8F

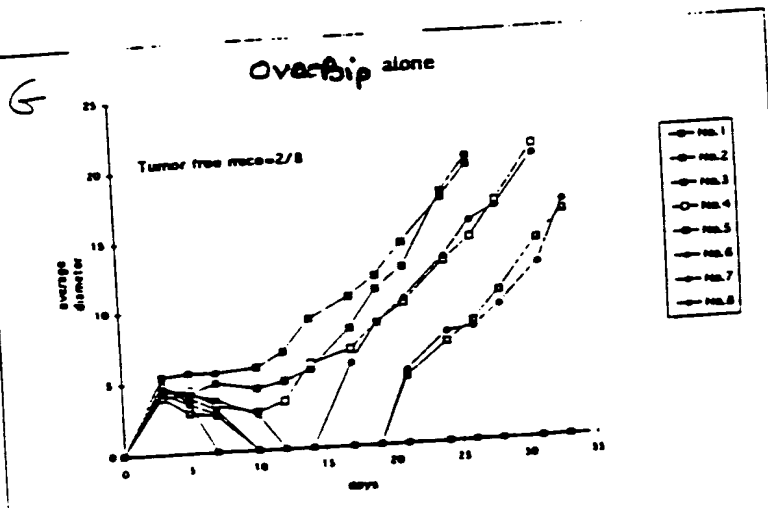


FIGURE 8G



## THE AVERAGE DELAY OF ONSET OF TUMOR GROWTH

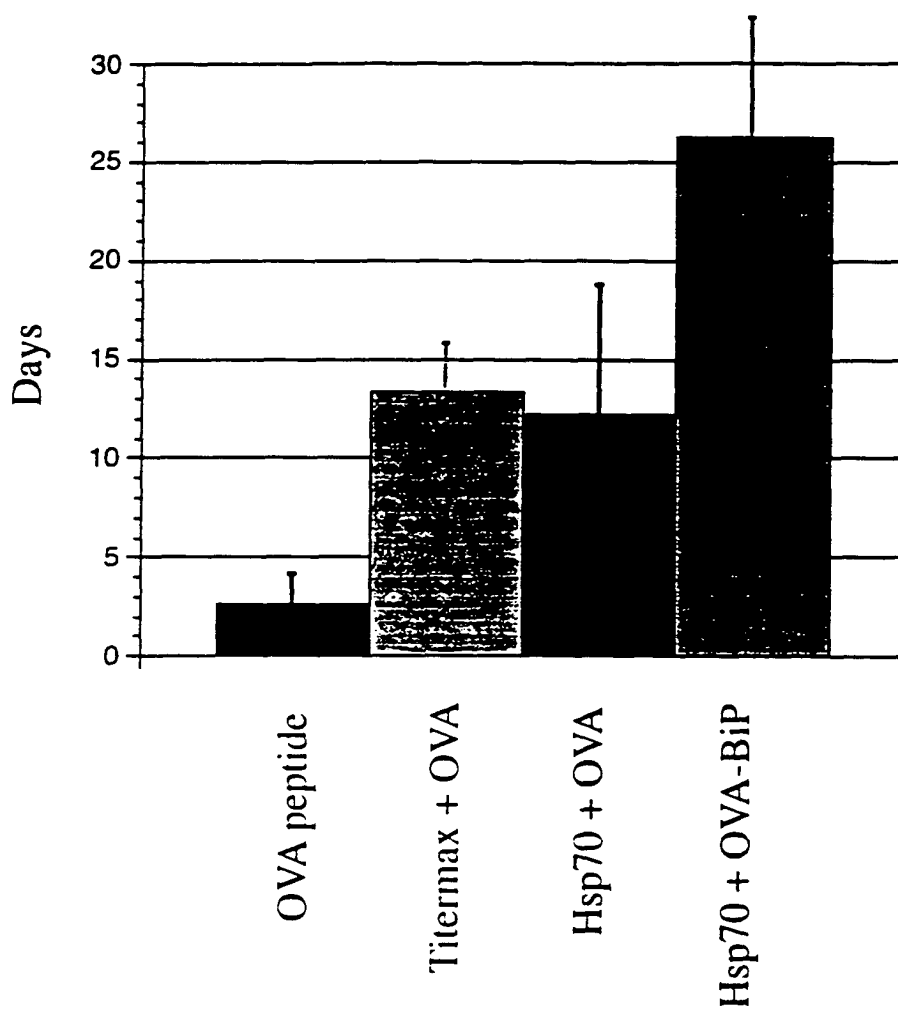
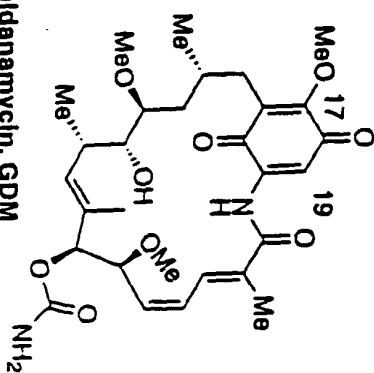


FIGURE 8(H)





Geldanamycin, GDM



Herblimycin A, HA

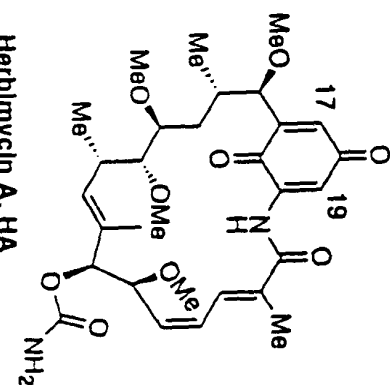


FIGURE 9A

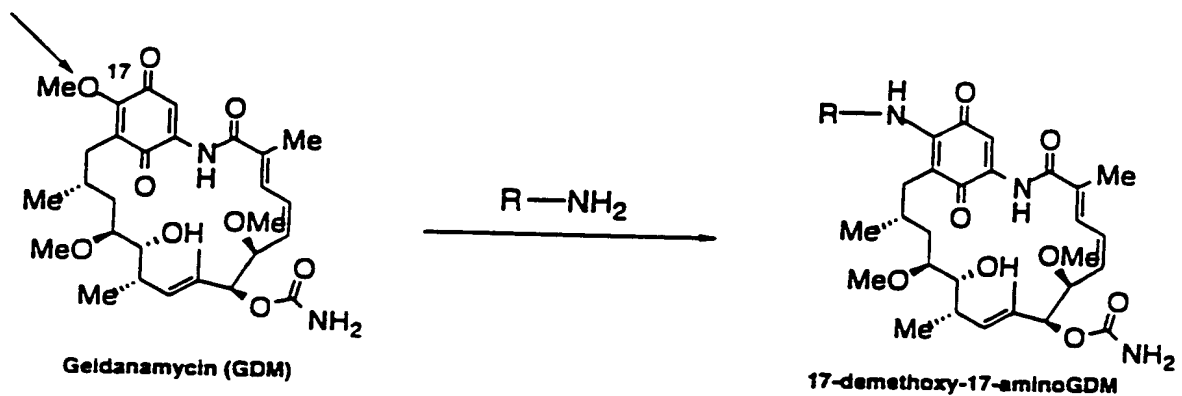


FIGURE 9B

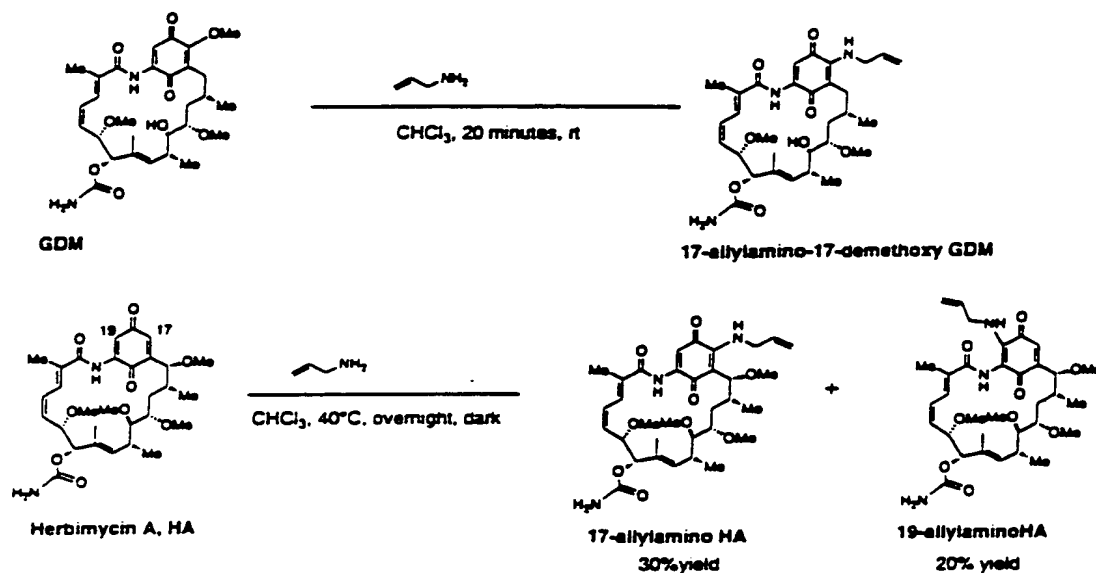


FIGURE 9C.

FIGURE 9D.

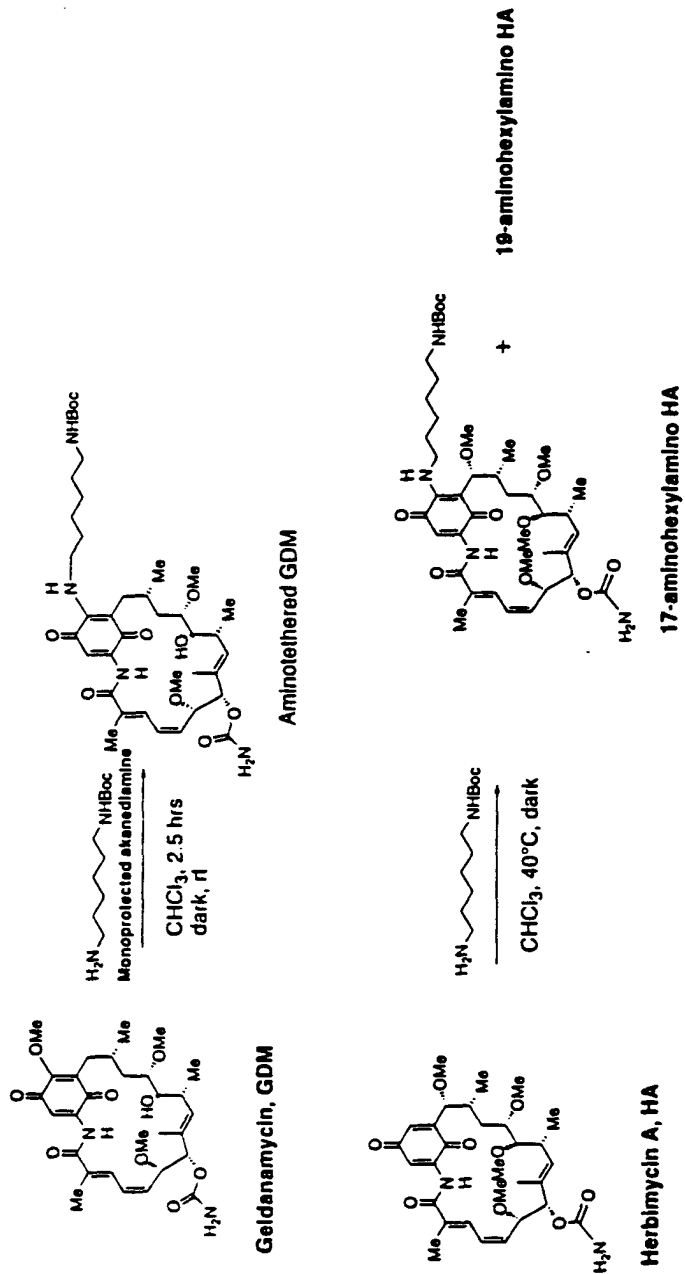


FIGURE 10 A-B

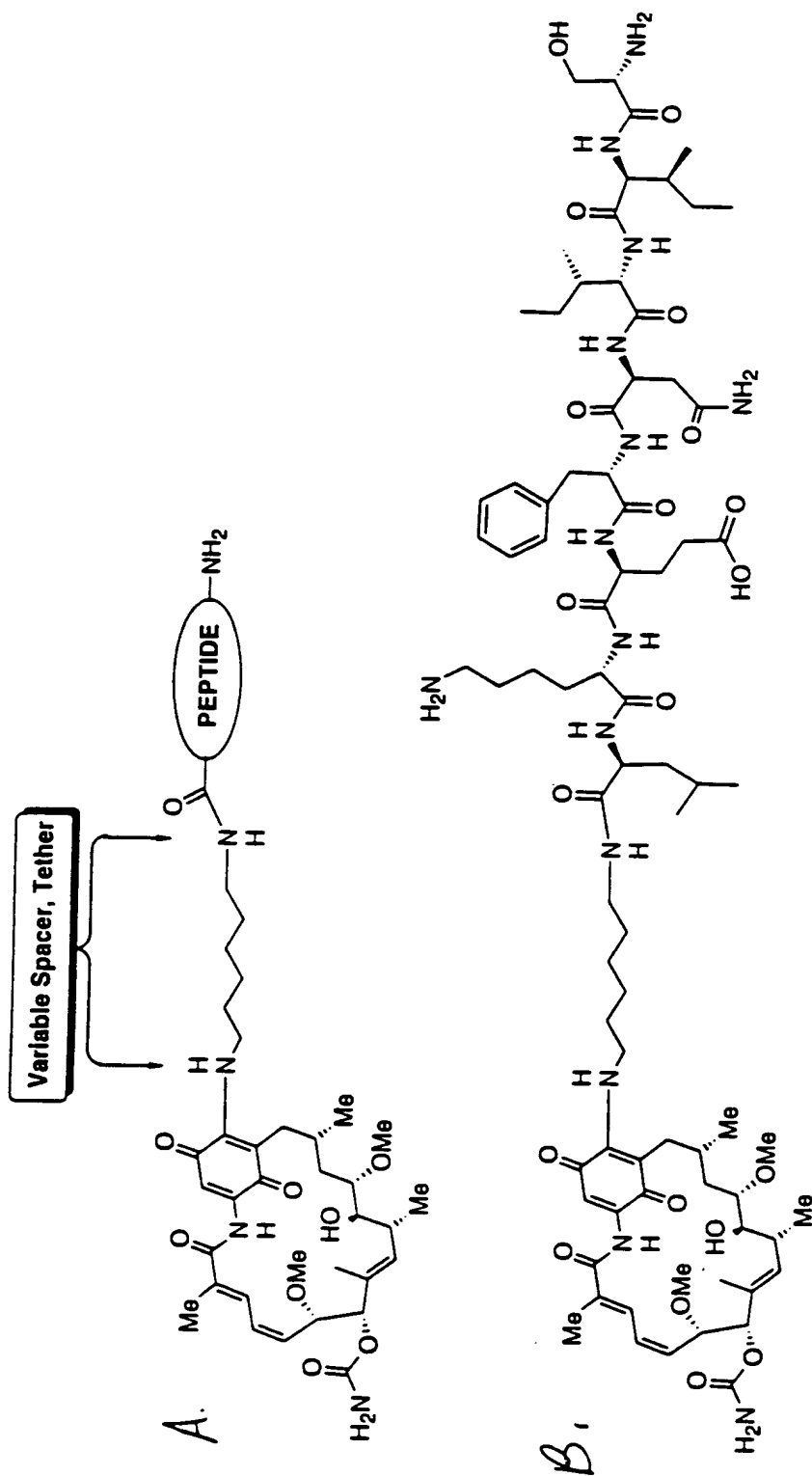


FIGURE 10 c-D

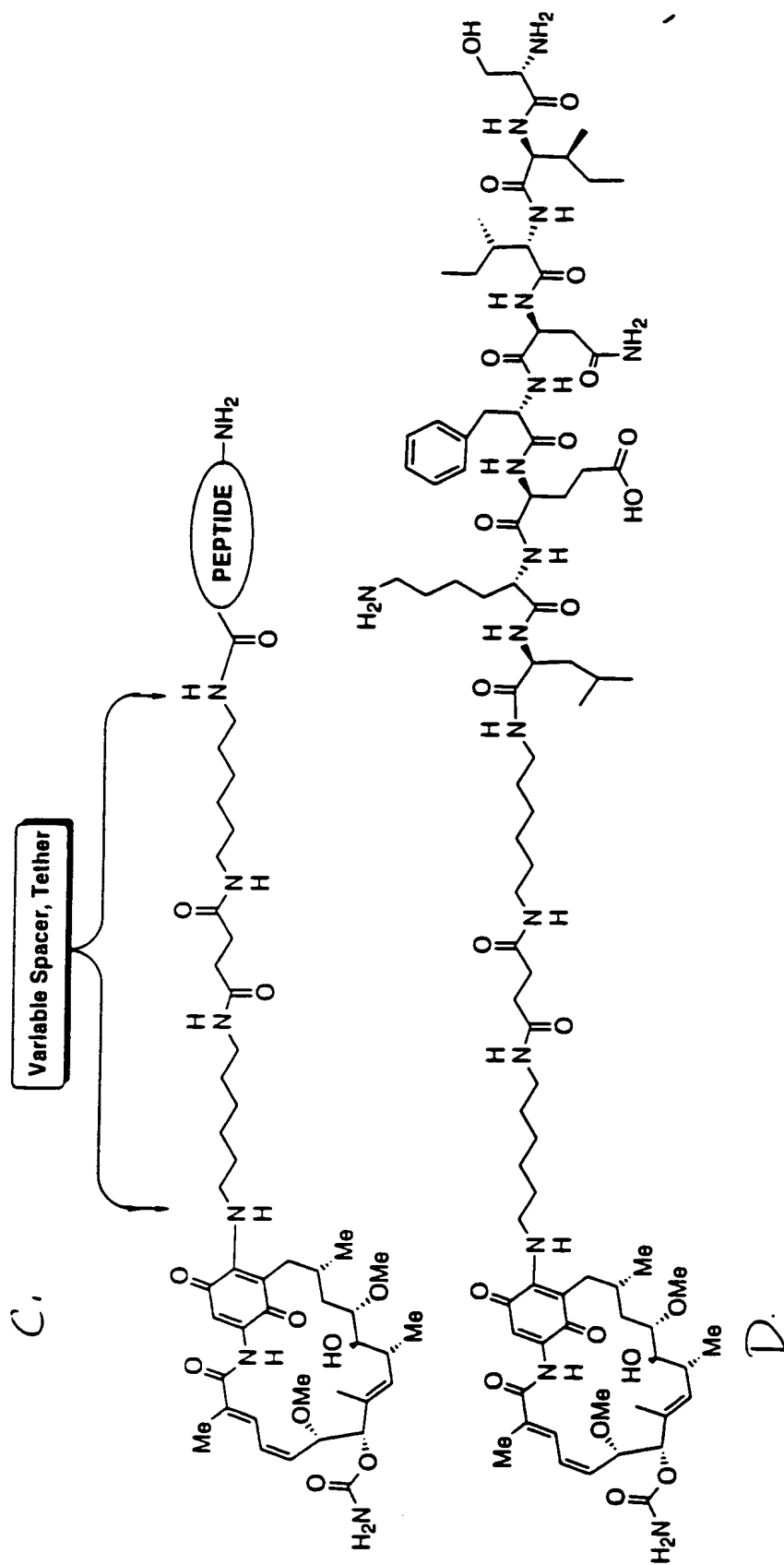
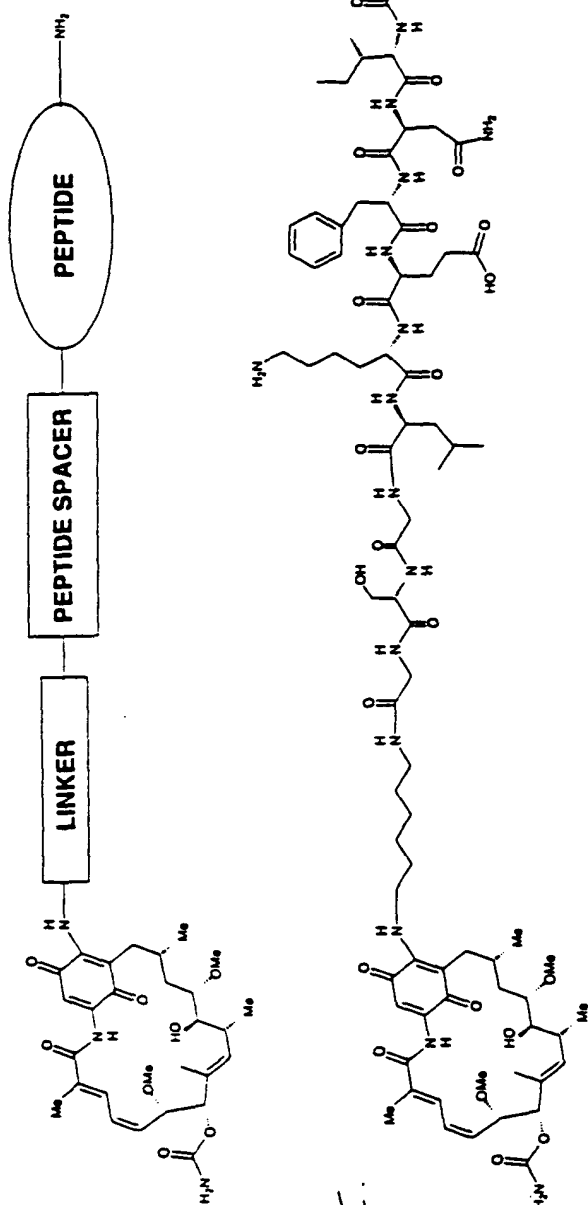


FIGURE 10 E-F

E.



F.

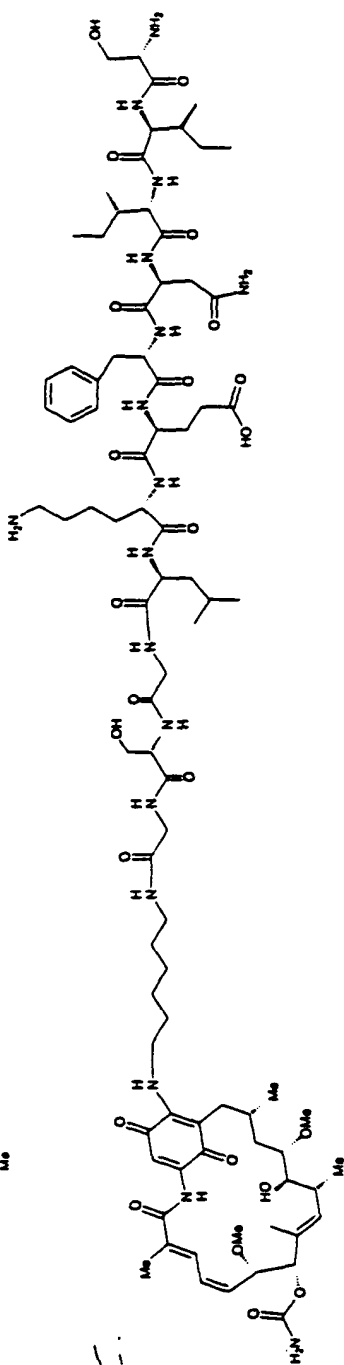


FIGURE 11 A-B

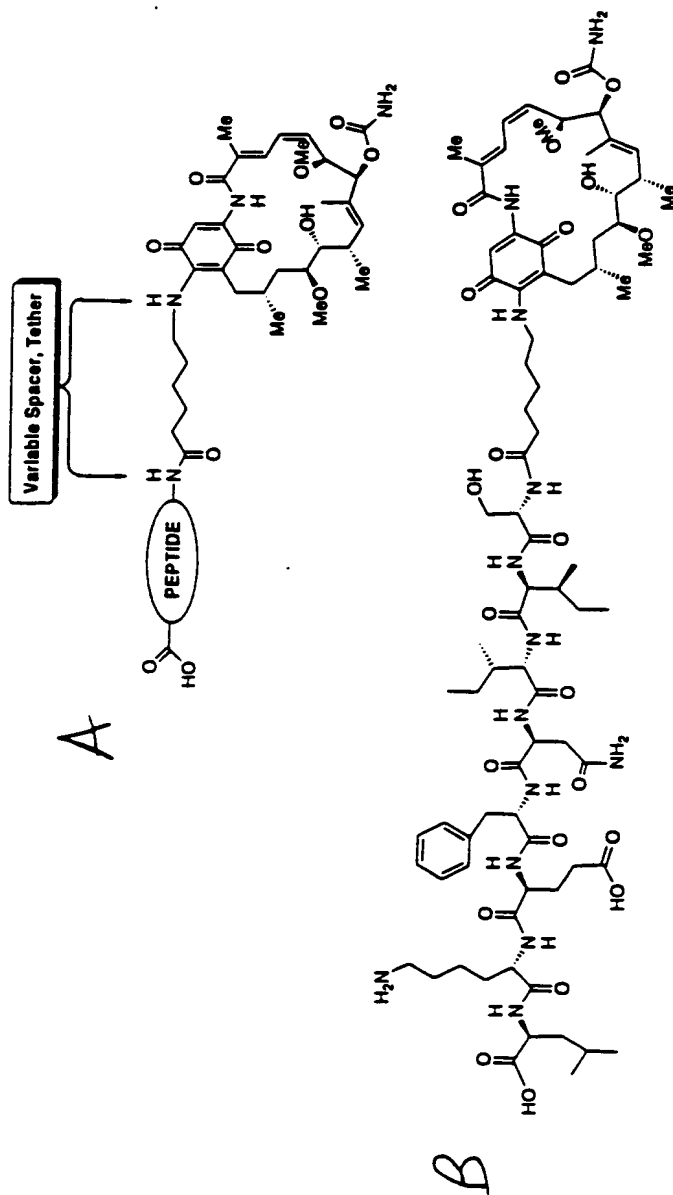
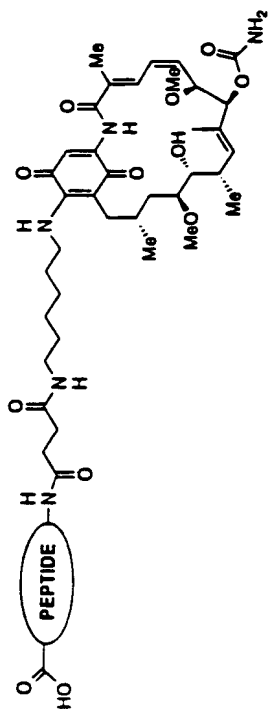




FIGURE 11C-D.

C



D

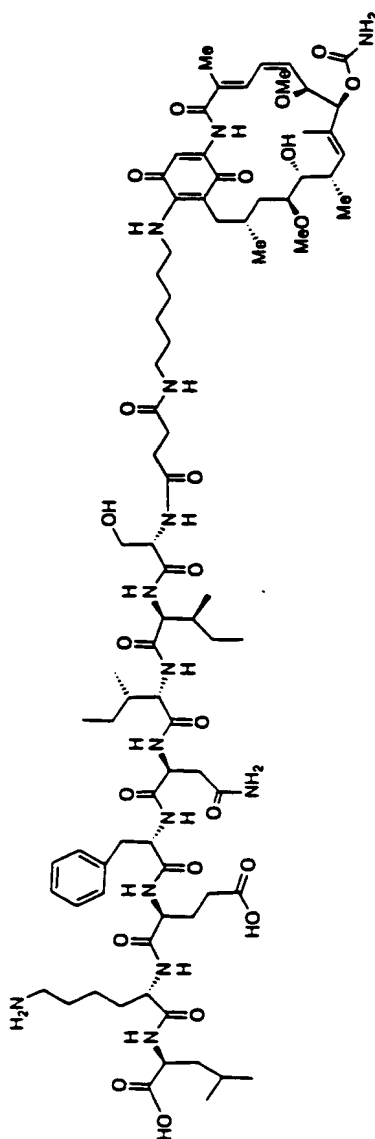
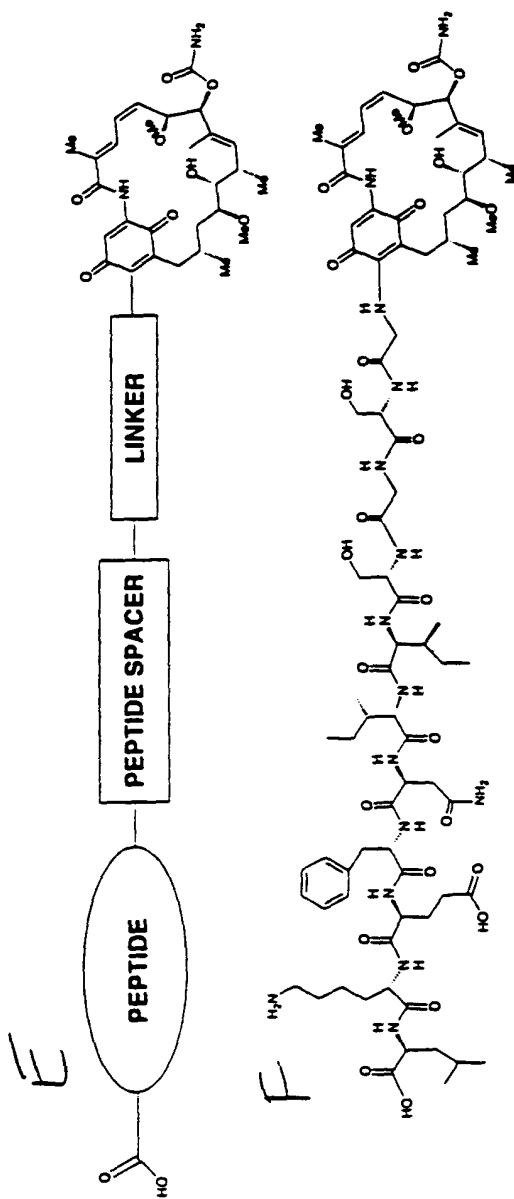


Figure 11 E-F



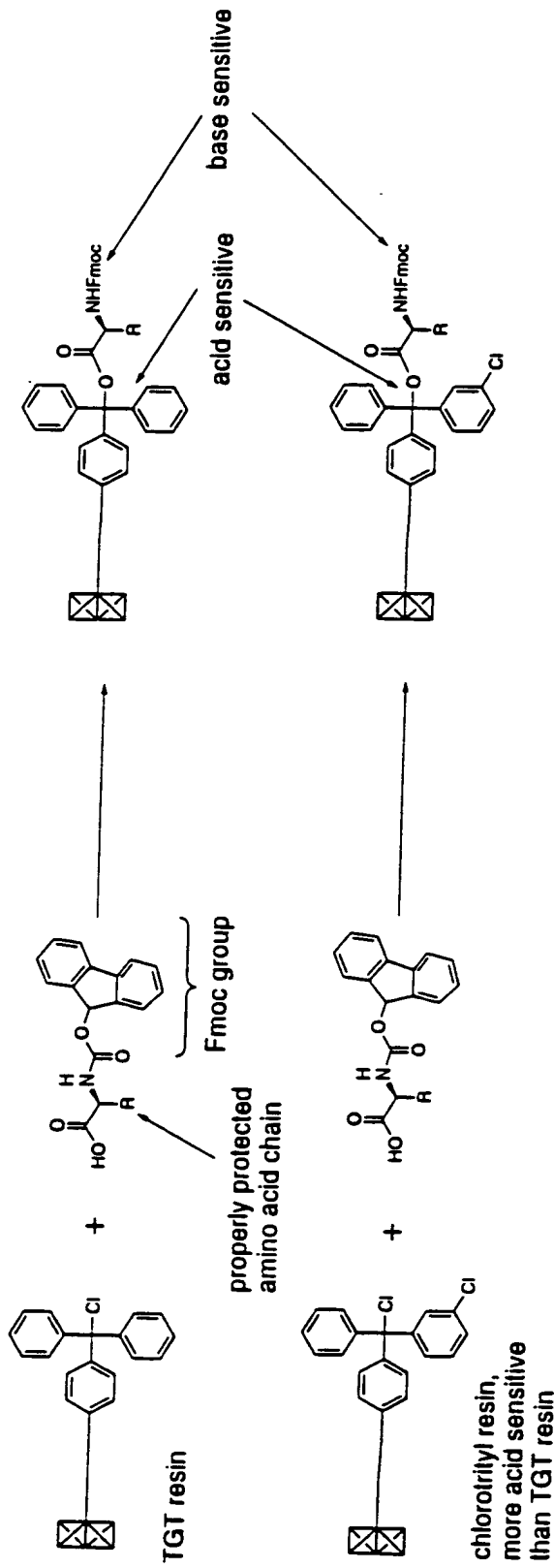


FIGURE 12.

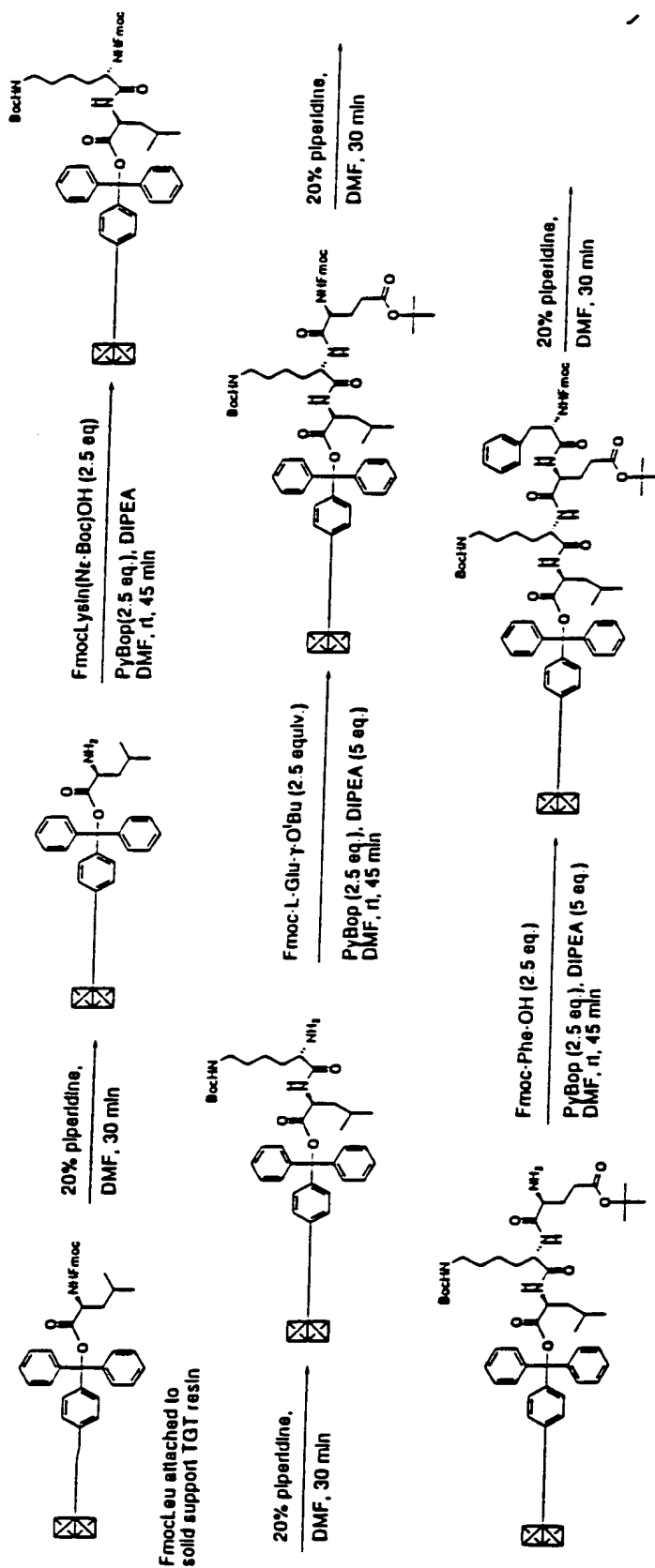
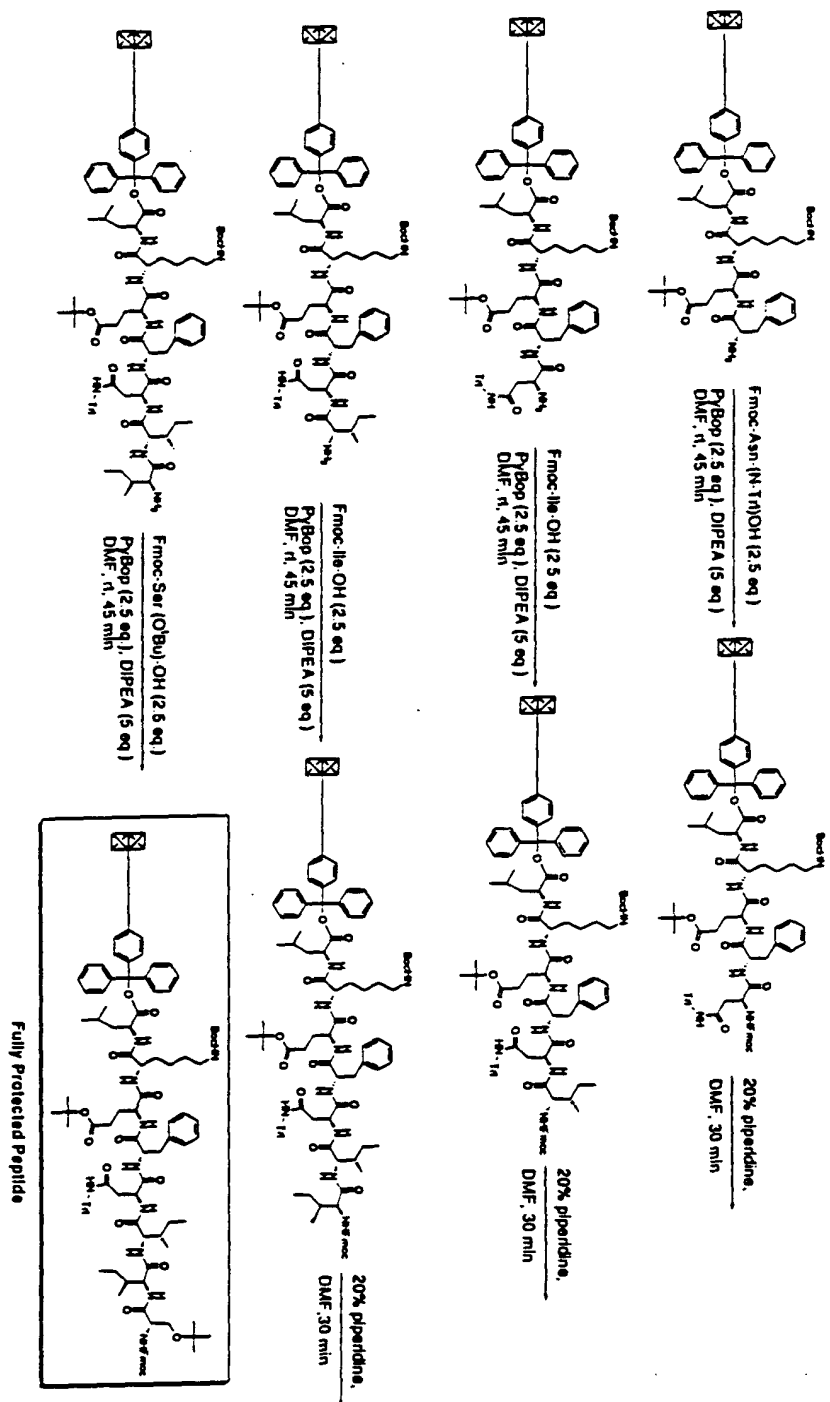


FIGURE 13A

Figure 13.B



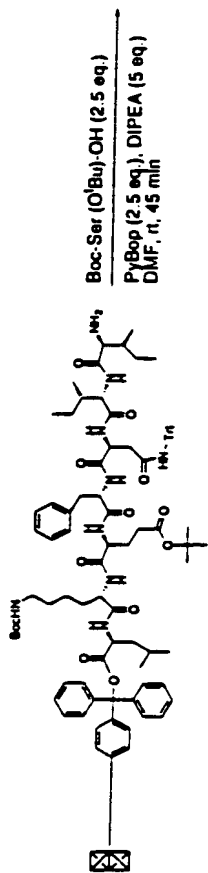
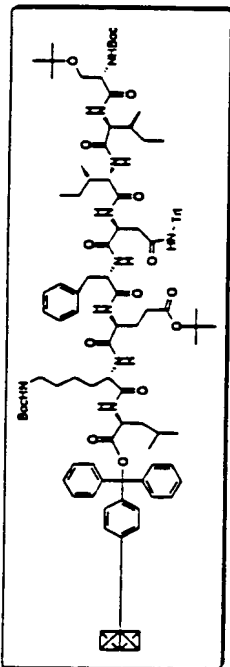
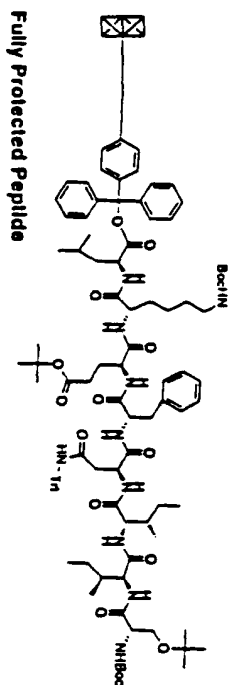


FIGURE 14A



14B



a) 1% TFA, CH<sub>2</sub>Cl<sub>2</sub>, 2 min, rt  
b) Pyridine, methanol (1:9)  
c) purification

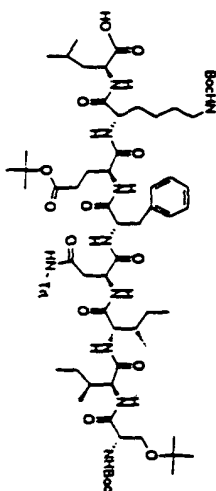


Figure 14B

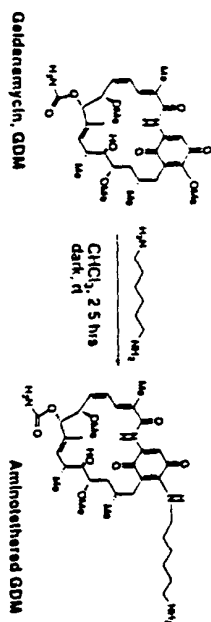
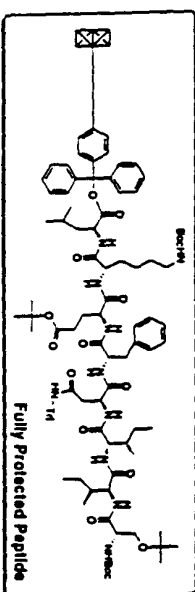
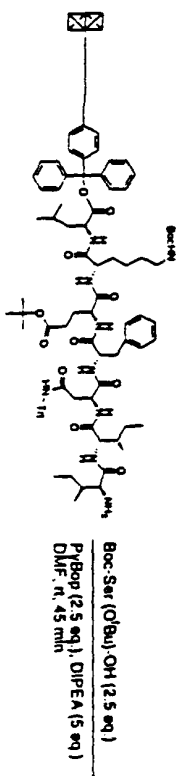
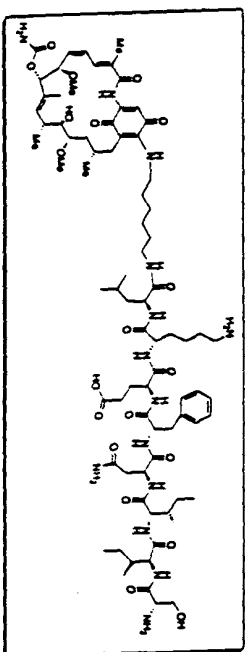


FIGURE 15.



1) DEPROTECTION:  
 85% TFA, 25% CH<sub>2</sub>Cl<sub>2</sub>, 2.5% TIPS  
 2) PURIFICATION





Fully Protected Peptide

peptide with terminal amine free

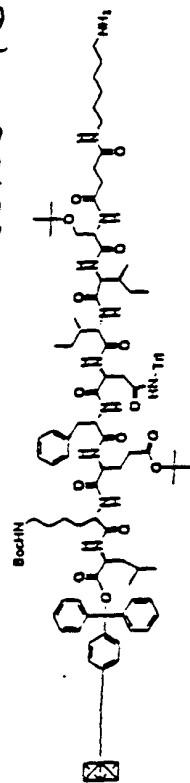
a) PyBop (2.5 eq.), DIPEA  
DMF, rt, 5 min.  
b) peptide with terminal amine free

a) PyBop (2.5 eq.), DIPEA

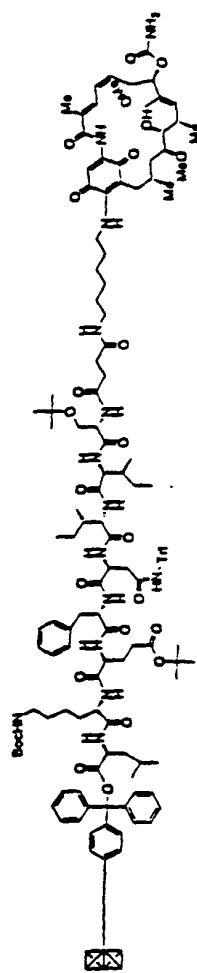
DMF, 1, 5 min.

b) peptide with terminal amine free

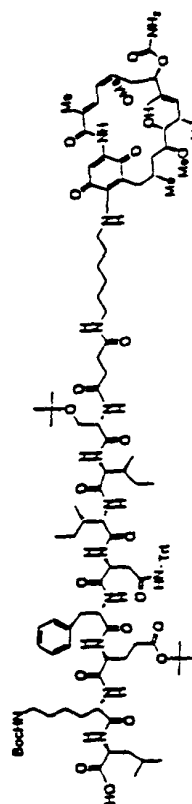
FIGURE 16B



GDM, DMSO, rt, Dark, 4-5 hours

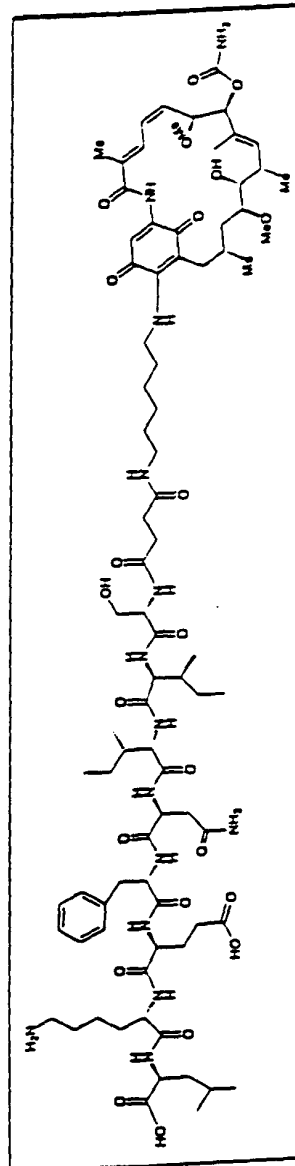


- 1) 1% TFA, CH<sub>2</sub>Cl<sub>2</sub>
- 2) Pyridine, methanol (1:9)
- 3) silica gel chromatography



a) 50% TFA, 40% CH<sub>2</sub>Cl<sub>2</sub>, 10% TIPS

b) Purification



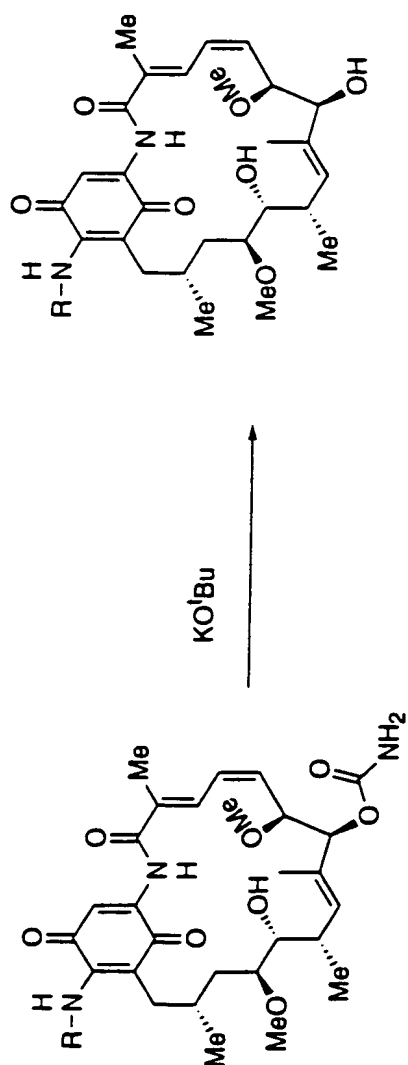


FIGURE 17A

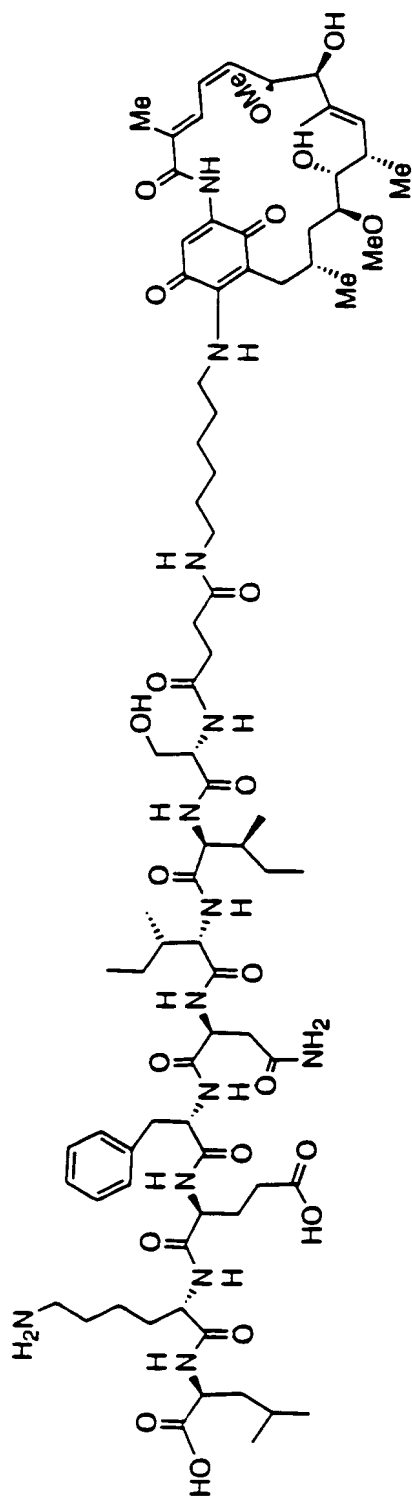


FIGURE 17B.

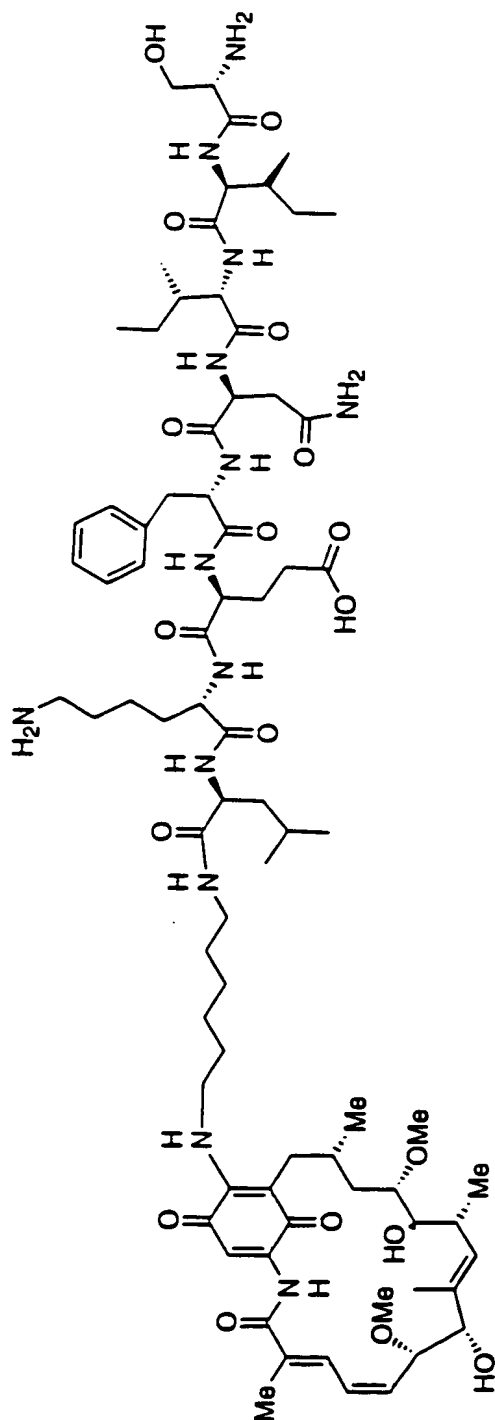


FIGURE 17C.

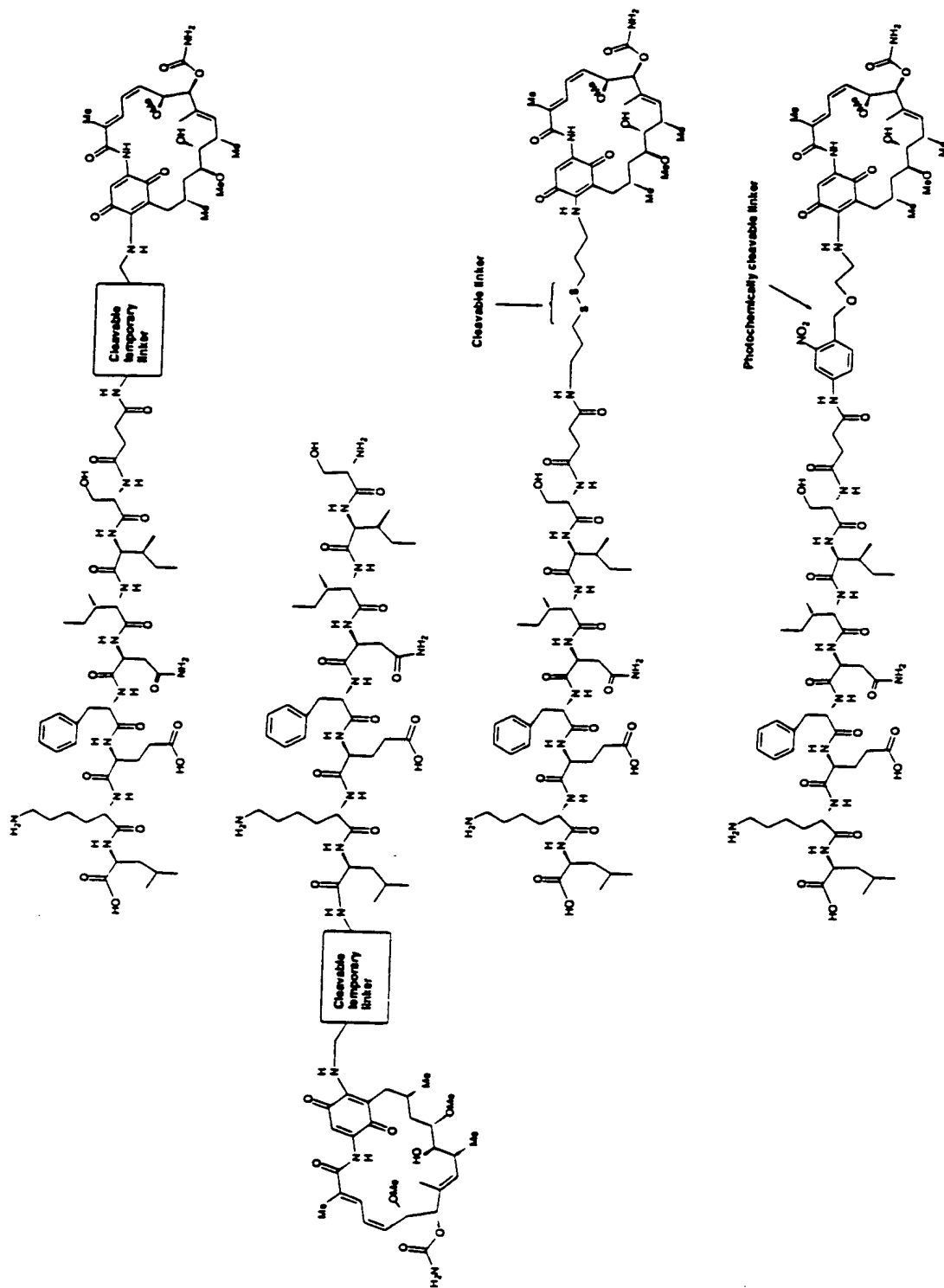
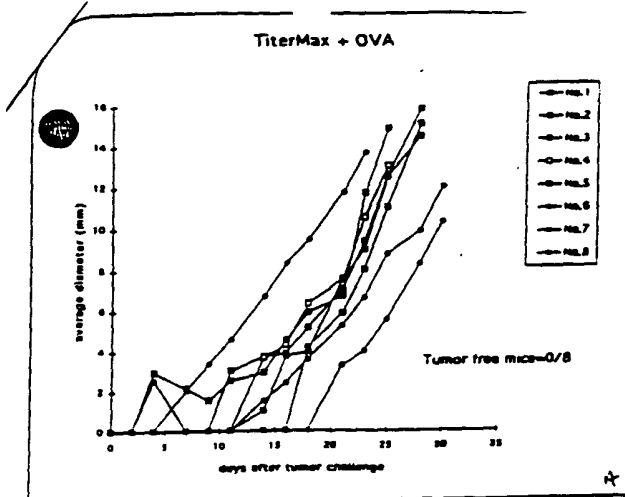
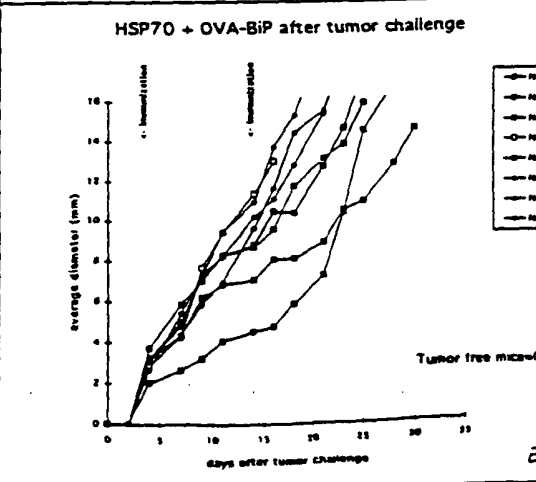
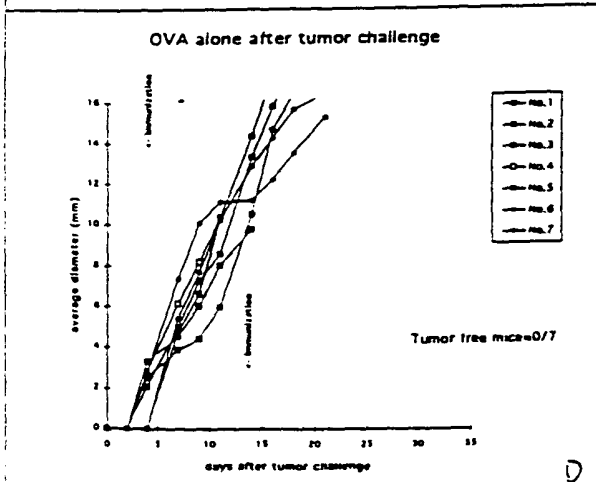
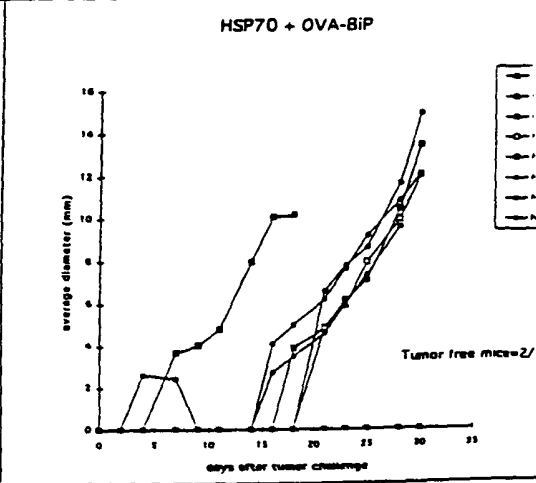
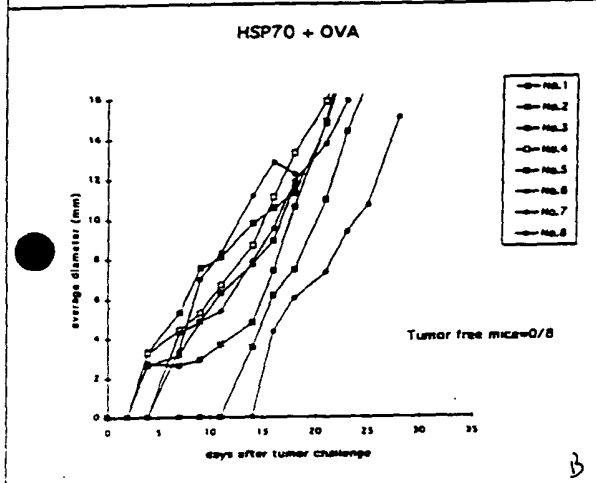


FIGURE 18



Immunization 7  
 6/4 challenge  
 $1 \times 10^6$  MO4

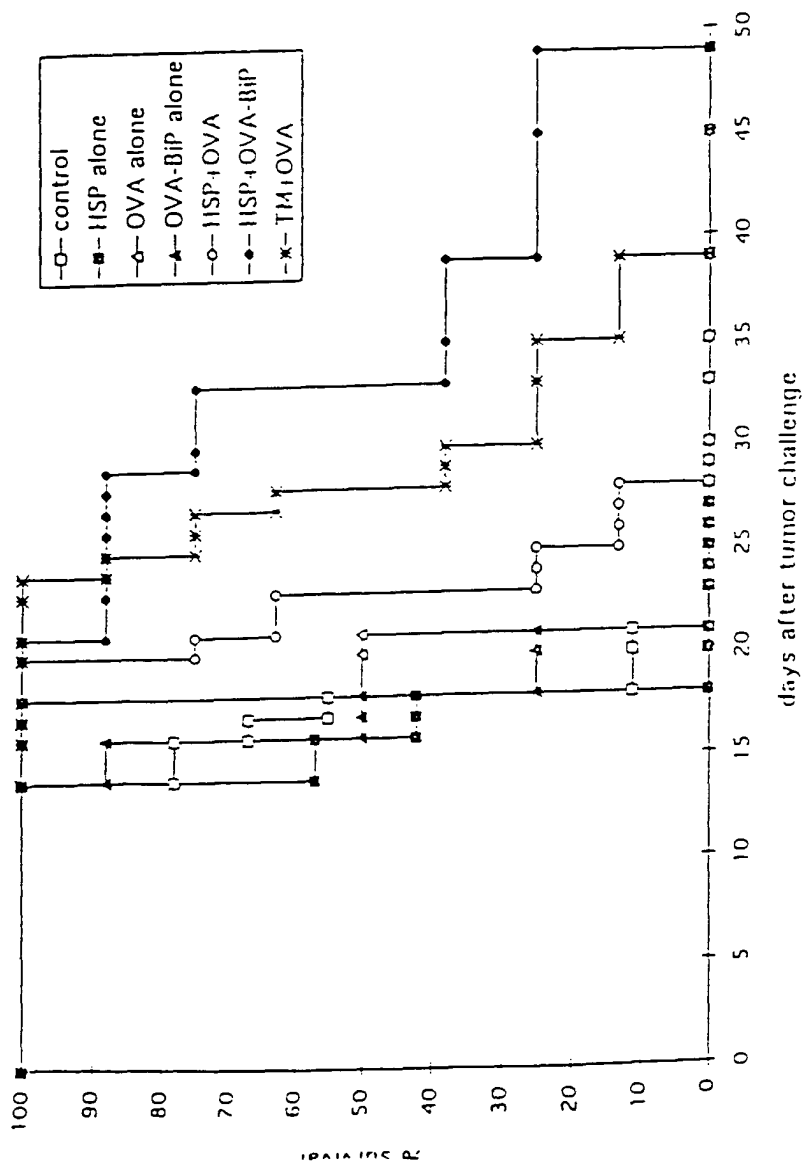
FIGURE 19A-E



Immunization 4  
 4/11

Figure 19F.

Survival ratio of mice immunized 7 days before challenge with melanoma cells







Survival ratio of mice immunized 7 & 14 days after challenge with melanoma cells

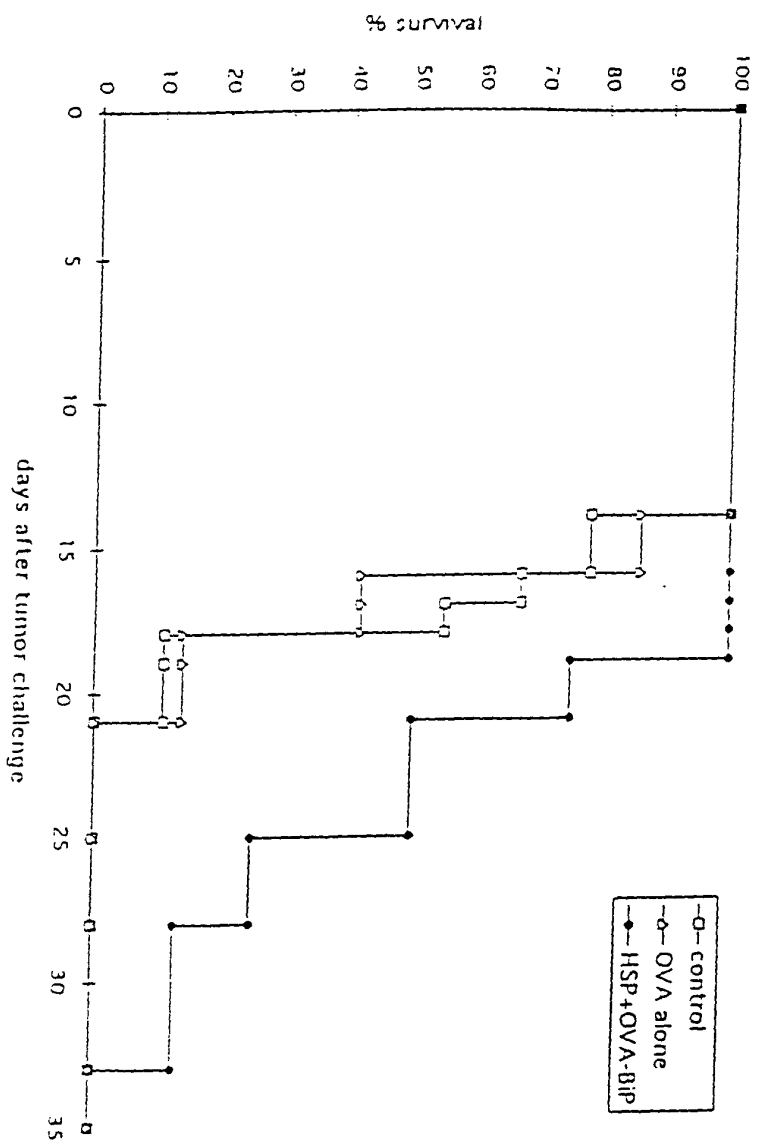


Figure 19G.

Figure 19G